

# *In the Image and Likeness*

A spiritual message given by Joy T. Barnitz at San Francisco Swedenborgian Church on Sunday, 1 July 2007

## Readings

- **Reading #1** - Genesis 1:26 - 28 (Revised Standard Version)  
Then God said, "Let us make man in our image, after our likeness; and let them have dominion over the fish of the sea, and over the birds of the air, and over the cattle, and over all the earth, and over every creeping thing that creeps upon the earth." So God created man in his own image, in the image of God he created him; male and female he created them. And God blessed them...  
**From True Christian Religion #34** (Ager) (God the Creator) [From this \(passage above\) it follows that man is an organic form recipient of God, ... The human mind, which makes man to be man, and in accordance with which man is man, ... is a receptacle of Divine influx; nevertheless, the Divine flows into it no further than man prepares the way or opens the door](#)
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- **Reading #2 -John 1: 1 & 14 (Revised Standard Version)**  
In the beginning was the Word, and the Word was with God and the Word was God .... And the Word became flesh and dwelt among us, full of grace and truth ...  
**From True Christianity #84** (Dole - New Century Edition) (the Lord as Redeemer) [God could not have redeemed people, that is, rescued them from damnation and hell, without first taking on a human manifestation ... Given Jehovah's inherent nature, despite his omnipotence he could not touch any individual devils in hell or any individual devils on earth and control them or their rage or tame their violence unless he could be as present in the farthest realms as he is in those closest to him. In his human manifestation he is in fact present in the farthest realms. This is why the Word refers to him as the First and the Last, the Alpha and the Omega, the Beginning and the End.](#)
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## References:

- Nicholas Wade – Before the Dawn
  - Francis Collins – The Language of God
  - Jerome Groopman – How Doctors Think – Ch. 5 “A New Mother’s Challenge”
  - NIH News June 13, 2007 “New Findings Challenge Established Views on Human Genome”
  - Wikipedia “central dogma of molecular biology” – also Crick’s 1970 paper
  - Wikipedia “sickle cell anemia”
  - [www.genome.energy.gov](http://www.genome.energy.gov) – the human genome project
  - Watson & Crick’s 1953 papers - <http://www.nature.com/nature/dna50/archive.html>
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What does it mean to be created 'in the image and likeness' of God?

A few weeks ago, Rev. Rachel told us a story about a little girl who was drawing a picture using ALL of her crayons, who, when asked by her teacher what she was drawing, replied "A picture of God." When her teacher told her that many people didn't know what God looked like, the little girl told her teacher "They will when I am through with my drawing".

I invite you to close your eyes for just a minute: what is your image of God? what does God look like to you?

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In May 2006, at the Gathering Leaves retreat for Swedenborgian women, I participated in a workshop on the developing concept of the Lord. The leader asked us each to draw a picture of the Lord. We each had a large sheet of paper, a variety of colored markers and 10 minutes. In silence, the group members thought and then began to draw.

I strolled outside, wanting to postpone this as I'm a really terrible visual artist. There I was, surrounded by women busily drawing and using several markers to accent their images, usually faces, with colors.

I recall thinking that Einstein's famous equation  $E=mc^2$  and Newton's equation describing gravity ( $F=ma$ ) somehow didn't fit. Physics and math are the most fundamental and elegant language of the natural world, but I am not fluent in that language.

There I was, clutching a black marker and a large piece of newsprint. Time was running out. Just as we were recalled to the group, I scribbled something on my paper and went back inside.

We were asked to show our pictures. Everyone else had a human-like figure or a sun.

I had drawn the double helix. The structure of DNA. The chemical structure fundamental to life on earth.

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As a child, I was taught in a New Church school that science is the study of the laws of order by which the LORD governs the universe. Little did I know that my lifetime would encompass a revolution in our understanding of how life 'works'. Just one example illustrates this: I started graduate school just as 'genetic engineering' and 'recombinant DNA' were becoming the 'buzz words' of their time. One year it was impossible to sequence DNA, the next year I was taught how to do it and a few years later it was an automated process. Now we know the sequence of the human genome and we have the ability to measure small, but significant differences in the genes of each of us to enable us to know our risk of Huntington's disease, to know if Herceptin will work on our breast cancer, to understand why different people require different doses of the 'blood thinning' agent coumadin, and the examples go on and on.

According to the National Institutes of Health web site on the Human Genome Project, the rough draft of the human genome, that is the sequence of all of the DNA specifying a human being, was completed in the year 2000. In announcing this milestone, President Clinton attracted a great deal of attention with the following words: "Today ... we are learning the language in which God created life. We are gaining ever more awe for the complexity, the beauty, and the wonder of God's most divine and sacred gift."

The completion of this work, which is defined by scientists seeking to express **precisely** the limits of their knowledge, as 99% of the gene-containing part of the human DNA sequence finished to 99.99%

accuracy, occurred in the spring of 2003 and was timed to coincide with the 50<sup>th</sup> anniversary of the publication by Watson & Crick of the fundamental structure of DNA. And in 2007, what 'could not be done' at all a short 30 years ago, can now be done on the DNA for an individual human being.

The structure of DNA is elegant, in the sense that physicists use that word. The structure is easily represented as a ladder with the 'coding' chemicals as steps of the ladder. One of the most famous understatements in a scientific publication is at the end of Watson & Crick's first paper in April 1953: "It has not escaped our notice that the specific pairing we have postulated immediately suggests a possible copying mechanism for the genetic material." Once the structure was visualized as a ladder it was obvious how it replicates: the two strands that form the uprights separate, one half of each 'step' on the ladder remains with each 'upright' and a 'replicate' of the missing half is made by the cell.

Over the ensuing 50 years we have learned to decipher the genetic code, how to translate the detailed sequence of the DNA into the structures that comprise a living cell. There is a 'central dogma' of molecular biology which describes the manner in which this occurs: DNA makes RNA makes protein. And we have come to understand that, like many dogmas, it is incomplete. For example, sometimes RNA is the genetic material, as in the influenza virus we get vaccinated against annually. Mostly however, our simplified view, our 'central dogma' works to describe how cells go about their daily business.

Among the many surprises is that only about 20,000 - 25,000 genes are required to specify a human being, down from the approximately 100,000 predicted in the mid-1990s when the Human Genome Project was begun.

How elegant: only 25,000 genes to completely specify each of us!

The DNA sequences of these genes are nearly identical between humans and chimpanzees. Indeed, many of these genes have changed but slightly from those specifying similar structures in the yeast that help make bread, wine and beer. As individuals, we differ from each other in very tiny ways, sometimes as little as a single one of those ladder steps in a very crucial location. One single mis-spelling in the DNA language can make the difference between having sickle-cell anemia or not, hemophilia or not, cystic fibrosis or not. These mis-spellings are the raw material for adaptation to new natural environments: one step of the ladder at a time.

How elegant: only 25,000 genes to make each one of us a completely unique 'one-of-a-kind' work of art. Only 25,000 genes to build what Swedenborg describes in True Christianity as "the organic form recipient of God". And it is in this organic form that the "human mind, which makes man to be man, and in accordance with which man is man ... a receptacle of Divine influx" resides.

Let's look at one example of the impact on the organic human form of a minor mis-spelling which leads to 'dis-ease'. Sickle-cell anemia is caused by a single mis-spelling in the gene for hemoglobin. This mis-spelling alters the shape of the red blood cells and their ability to carry oxygen. People with this disease suffer from various types of circulatory disorders. It is known that this disease is 'recessive' which simply means that both parents must 'carry' one copy of a normal gene and one of the altered gene. For an individual to have the condition, she or he must have received the altered copy from each parent, statistically a 1 in 4 chance. This is "Mendelian" inheritance. The parents who have a normal and an altered copy only have problems if they are deprived of oxygen, such as climbing a mountain, or are severely dehydrated. This condition of being a carrier is relatively common in areas where malaria is prevalent. It turns out that people carrying one altered copy and one normal copy are more resistant to malaria, less affected, than people with two normal copies. One mis-spelling provides an advantage in malarial areas. The human form is constrained by this change in its ability to use oxygen, yet is at an

advantage with respect to an infectious disease. A balance is maintained in the population by this mutation's presence, just as each of our lives is maintained in balance by the LORD.

Swedenborg tells us that the Bible is written in the 'science of correspondences'. In particular, the first chapters of Genesis come to us from the first written version of His Word and were understood by those of the Ancient Church as more than stories. Biblical scholars tell us that the story in the Old Testament is related to many other creation stories.

Yet who among us would expect that there **WAS** an Adam. And there **WAS** an Eve?

There are two parts of the human genome especially useful for tracking back through our ancestry. One is the Y-chromosome, possessed only by men; the other is the DNA inside the powerhouse of our cells, an organelle, yes cells have 'organs' which scientists call 'organelles', called mitochondria which are derived solely from our mothers. From studying the DNA of these two structures, we can trace human journeys out of Africa and into all parts of the world. We can trace the genes of the "Y" chromosomes from our fathers back to an 'ancestral' population in Africa. And we can trace the genes of the mitochondria from our mothers back to the same place and about the same time.

How elegantly the creation story of our reading from Genesis has captured this truth, this law of order by which the LORD governs the natural world.

The intellectual work of human minds in understanding the human genome is far from over. On June 13<sup>th</sup> of this year, "a set of papers promising to reshape our understanding of how the genome functions [were published]. The findings challenge the traditional view of our genetic blueprint as a tidy collection of independent genes, pointing instead to a complex network in which genes, along with regulatory elements and other types of DNA sequences that do not code for proteins, interact in overlapping ways not yet fully understood." In the words of the Director of the NIH National Human Genome Research Institute, Dr. Francis Collins, who is also the author of *The Language of God*. "...the scientific community will need to rethink some long-held views about what genes are and what they do, as well as how the genomes functional elements have evolved. This could have significant implications for efforts to identify the DNA sequences involved in many human diseases "

More than fifty years after our fundamental 'aha' about the structure of DNA, we are only beginning to unravel the laws of order that govern the complexity of our organic, human form. We increasingly understand the mis-spellings that underlie or pre-dispose our organic form to dis-ease. We can screen for these mis-spellings, we can tailor medications.

Our genetics is only one part of the story of our organic form. The air we breathe, the food we eat and the stresses we experience all contribute to forming the vessel through which our spirits encounter the natural world. Just as our bodies are shaped by these factors and our biological responses, so are our spirits shaped by our experiences and responses.

Even God needed a human form to touch the hells and tame them. "And the Word became flesh and dwelt among us" because "despite His omnipotence He could not touch any individual devils in hell or any individual devils on earth and control them or their rage or tame their violence unless He could be as present in the farthest realms as He is in those closest to Him."

God in human form is approachable. Each of us can, with confidence, develop a direct relationship with the LORD. To me this is both comforting and endlessly profound.

In a recently published book, *How Doctors Think*, the author, Jerome Groopman tells the story of Rabbi Rachel Stein. Rabbi Stein was a successful business woman who became a rabbi and, late in life, became the adoptive mother of a Vietnamese infant girl who was hospitalized for a nutritional deficiency that caused her to have a profound immune deficiency. The author describes Rabbi Stein's struggle to change the minds of the doctors who had mis-diagnosed her daughter as having a genetic abnormality. He asked her how she was "able to think clearly, assimilate complex medical information about her daughter's illness and press her requests that the doctors re-evaluate her daughter's illness? What kept her from breaking under the stress?"

Her response was to "... explain how she saw the world: 'God is like a best friend for me' A best friend. A friend you can always call upon. A friend who never deserts you. A friend who offers wisdom and resources without question. A friend you can bounce ideas off of with complete trust in his integrity. A friend you can reveal feelings to without fear that he might exploit your vulnerability."

The LORD made us in the image and likeness of Him and blessed us. God incarnate dwelt among us, full of Grace and Truth, not only to deliver us from the hells, but also that we may see God as Rachel Stein saw him: **as our best friend.**

Our organic form is a wonder, a tribute to the elegance that flows from the Divine Laws of Order that created the natural world. It is to the extent that our mind, which in Swedenborg's words 'makes man to be man and in accordance with which man is man', welcomes the Divine influx, to that extent we become fully human. It is not the organic form – our body, however elegant, that is the image and likeness of God. It is our mind, our spirits, that quest to understand that is in the image and likeness of God, the receptacle of the Divine. We can choose to open the door to that influx; to the extent that we do so seeking Divine Truth, to that extent we realize our full humanity

Rabbi Stein inserted the following prayer into her well-worn prayer book from which she read daily by the bedside of her infant daughter. It spoke to what she sought from her God:

Dear Lord,  
Having been created in Your image  
I am full of unrealized potential  
The realization of which  
Depends upon my acknowledgement of the potential.  
My recognition of all the gifts from You with which I am endowed,  
And my exploitation of the opportunities that lie open before me.  
Please Lord, help me rise to meet the challenge.  
Let me use those gifts for the benefit of all people.  
Dear Lord,  
For all that I am  
And all that I can be  
I thank You.

Amen.